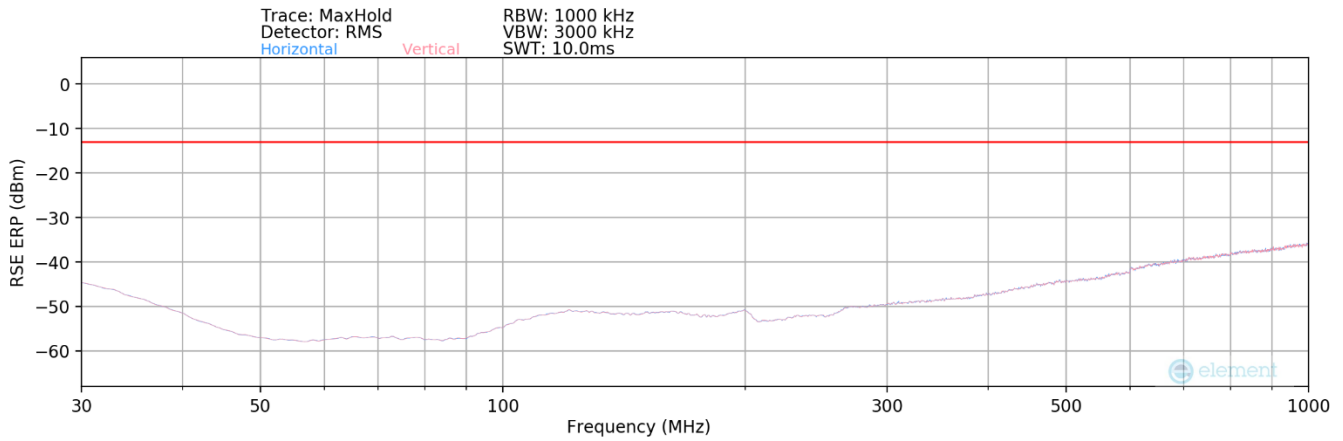
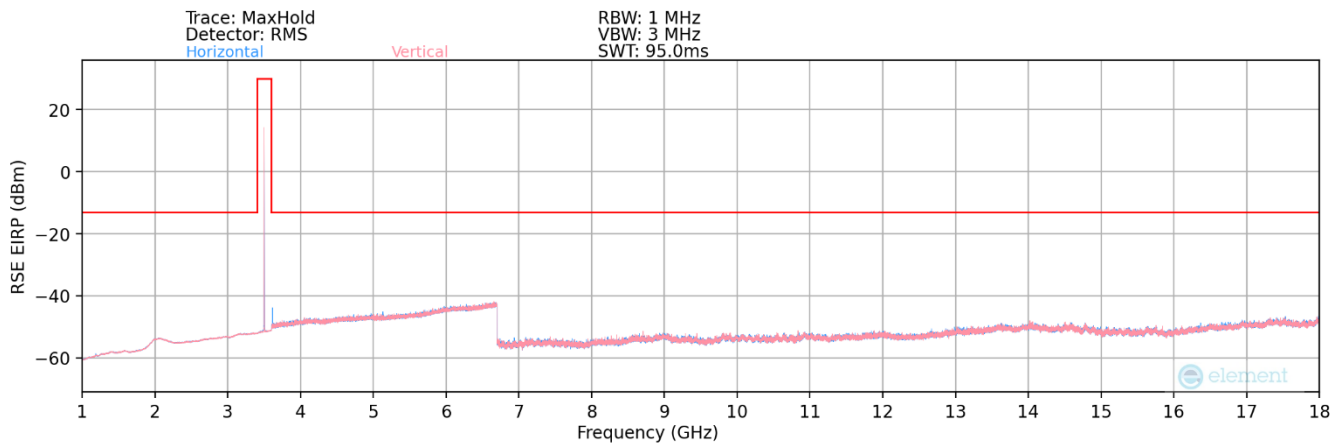


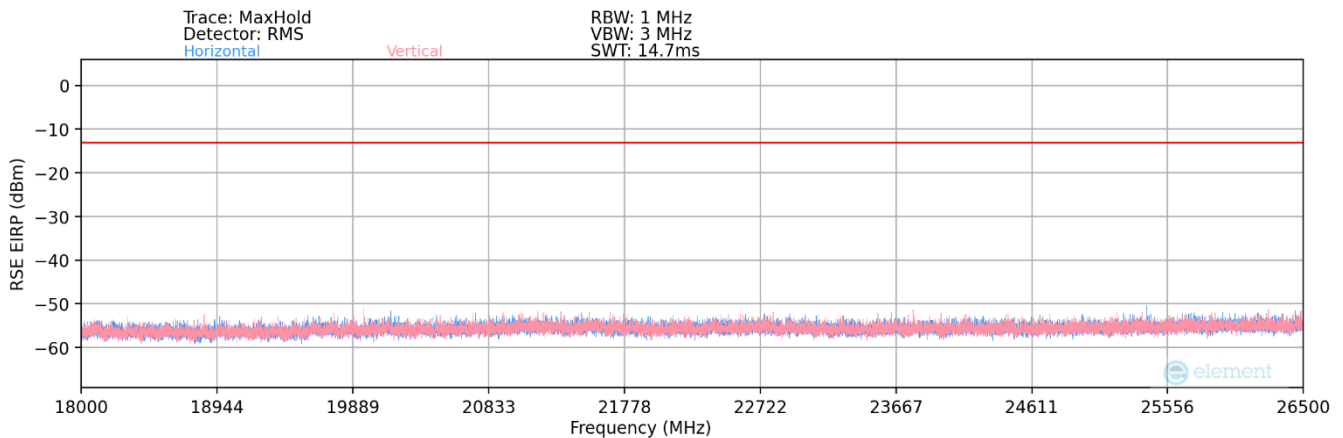
# NR Band n77 DoD – Ant C



Plot 7-171. Radiated Spurious Plot (NR Band n77 – Ant C)

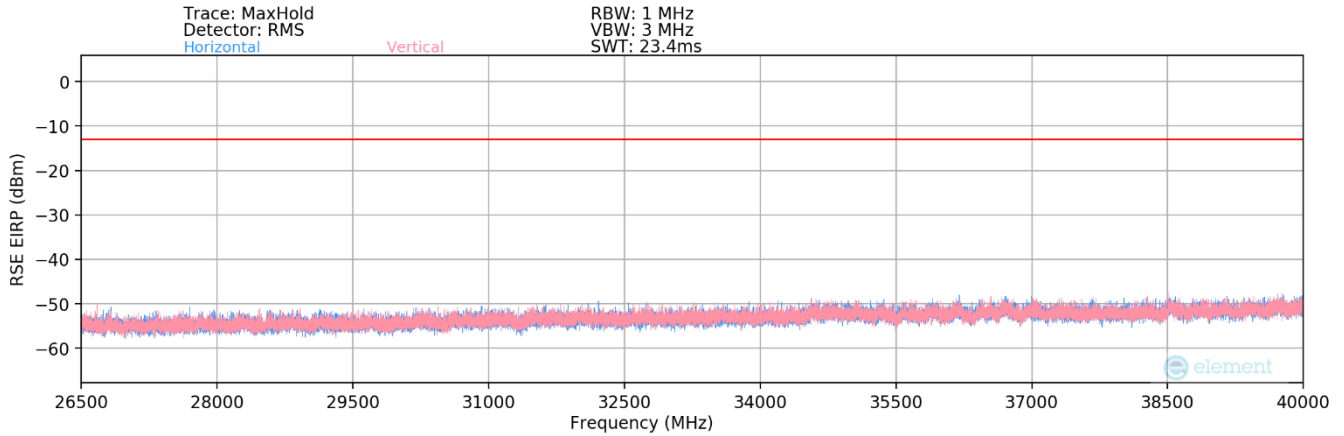


Plot 7-172. Radiated Spurious Plot (NR Band n77 – Ant C)



Plot 7-173. Radiated Spurious Plot (NR Band n77 – Ant C)

<b>FCC ID:</b> A3LSMS938B	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2408260069-08.A3L	<b>Test Dates:</b> 09/03/2024 - 11/05/2024	<b>EUT Type:</b> Portable Handset	Page 137 of 154



Plot 7-174. Radiated Spurious Plot (NR Band n77 – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
143.65	H	-	-	-73.99	19.62	52.63	-44.77	-13.00	-31.77

Table 7-34. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant C)

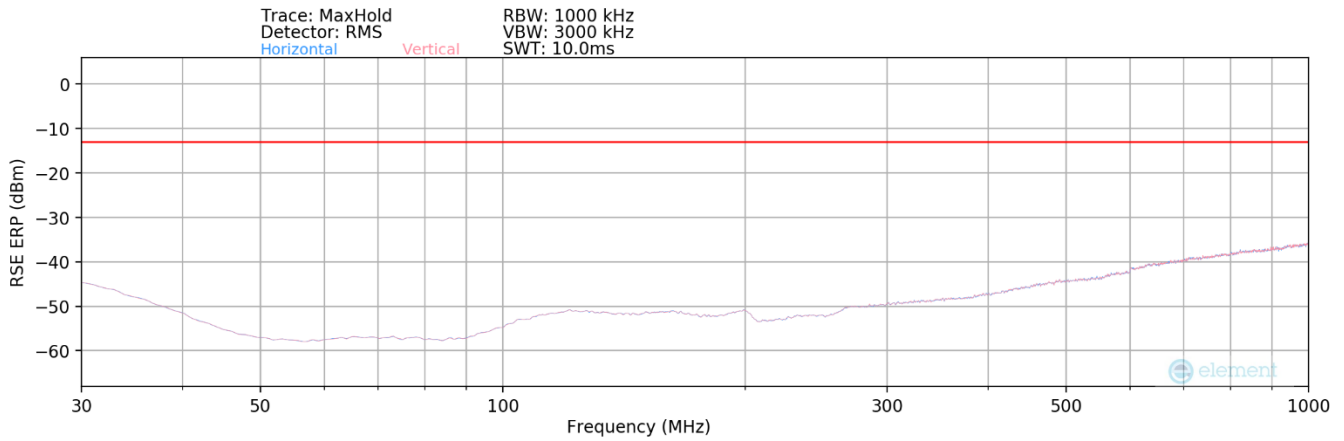
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7000.02	H	265	14	-76.71	9.04	39.33	-55.92	-13.00	-42.92
10500.03	H	-	-	-81.91	12.41	37.50	-57.76	-13.00	-44.76
14000.04	H	269	29	-79.22	16.06	43.84	-51.42	-13.00	-38.42
17500.05	H	-	-	-82.33	16.98	41.65	-53.60	-13.00	-40.60

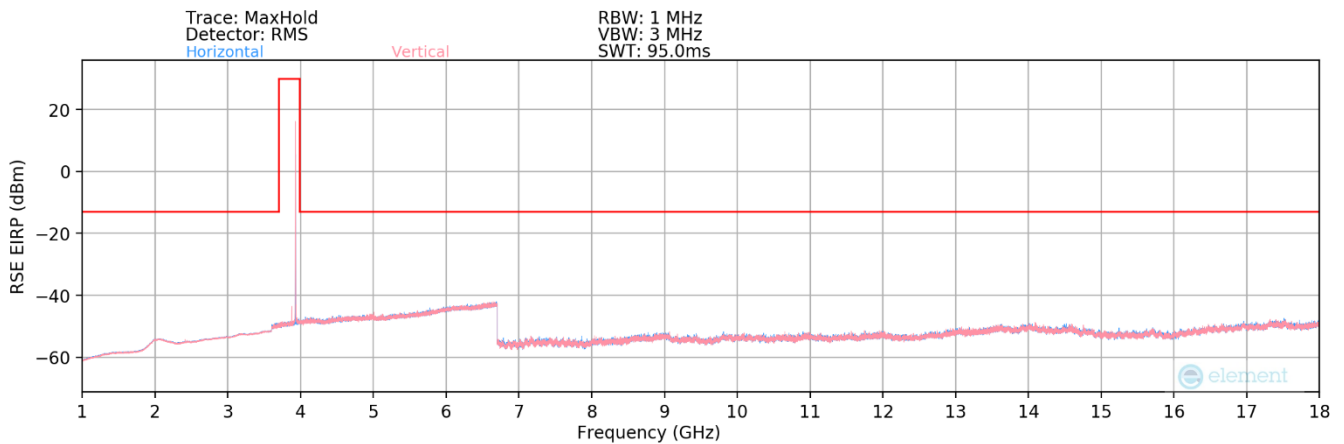
Table 7-35. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant C)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 138 of 154

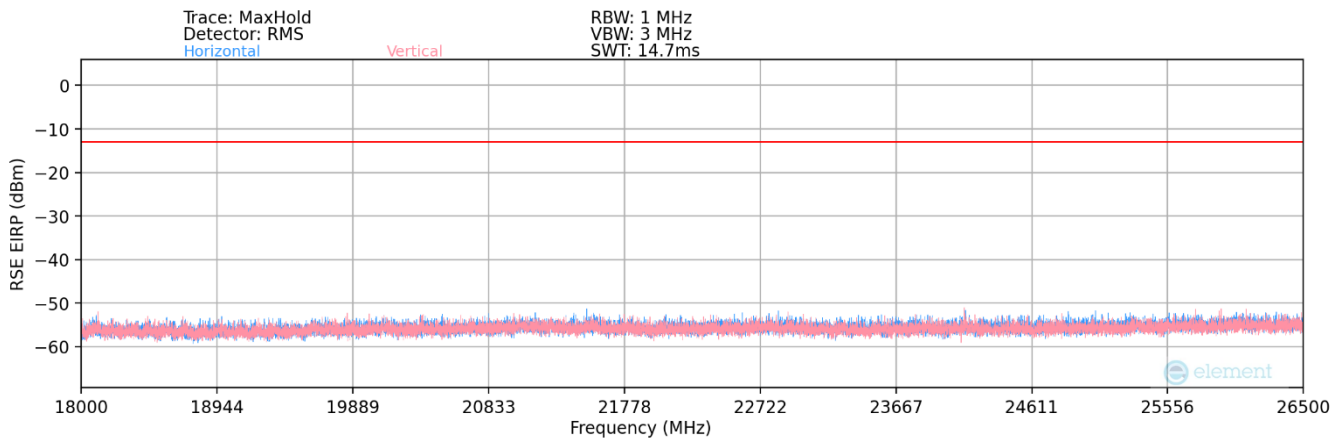
# NR Band n77 C-band – Ant C



Plot 7-175. Radiated Spurious Plot (NR Band n77 – Ant C)

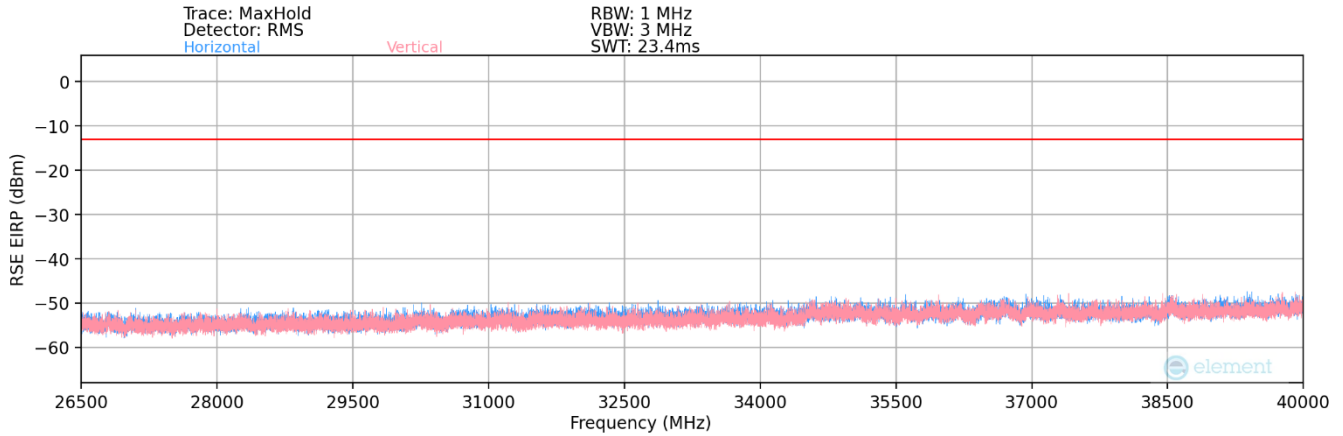


Plot 7-176. Radiated Spurious Plot (NR Band n77 – Ant C)



Plot 7-177. Radiated Spurious Plot (NR Band n77 – Ant C)

FCC ID: A3LSMS938B		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset		Page 139 of 154



Plot 7-178. Radiated Spurious Plot (NR Band n77 – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/271

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
142.56	H	-	-	-73.75	19.90	53.15	-44.26	-13.00	-31.26

Table 7-36. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7500.00	H	356	298	-76.78	10.14	40.36	-54.90	-13.00	-41.90
11250.00	H	-	-	-82.04	12.60	37.56	-57.69	-13.00	-44.69
15000.00	H	369	328	-81.59	14.06	39.47	-55.78	-13.00	-42.78

Table 7-37. Radiated Spurious Data (NR Band n77 – Low Channel – Ant C)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7680.00	H	372	37	-74.88	8.95	41.07	-54.19	-13.00	-41.19
11520.00	H	-	-	-83.57	13.02	36.45	-58.81	-13.00	-45.81
15360.00	H	-	-	-82.61	14.05	38.44	-56.82	-13.00	-43.82

Table 7-38. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant C)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 140 of 154



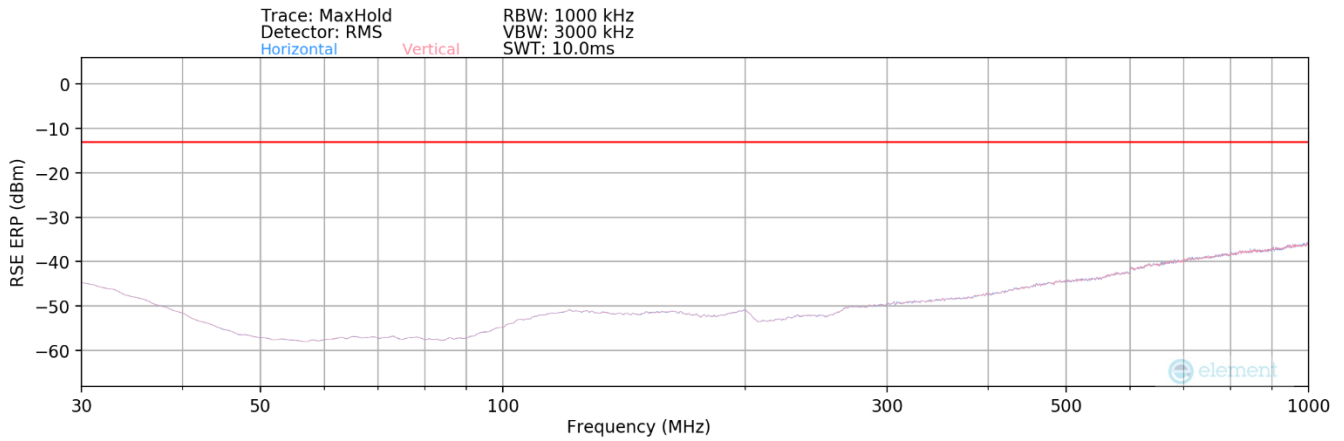
Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	H	306	49	-77.76	9.45	38.69	-56.57	-13.00	-43.57
11790.00	H	-	-	-81.88	13.33	38.45	-56.81	-13.00	-43.81
15720.00	H	-	-	-82.81	15.23	39.42	-55.84	-13.00	-42.84

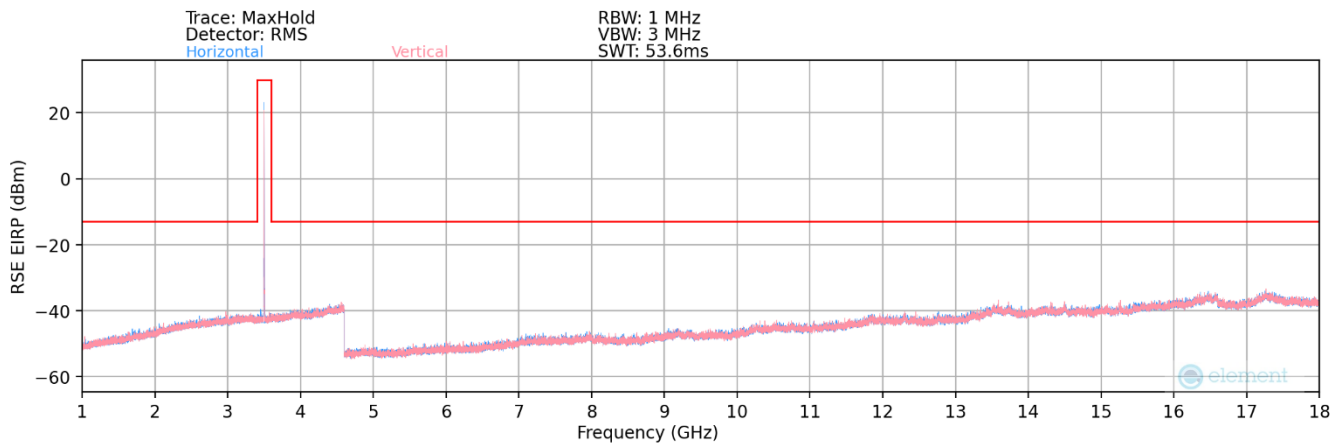
Table 7-39. Radiated Spurious Data (NR Band n77 – High Channel – Ant C)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 141 of 154

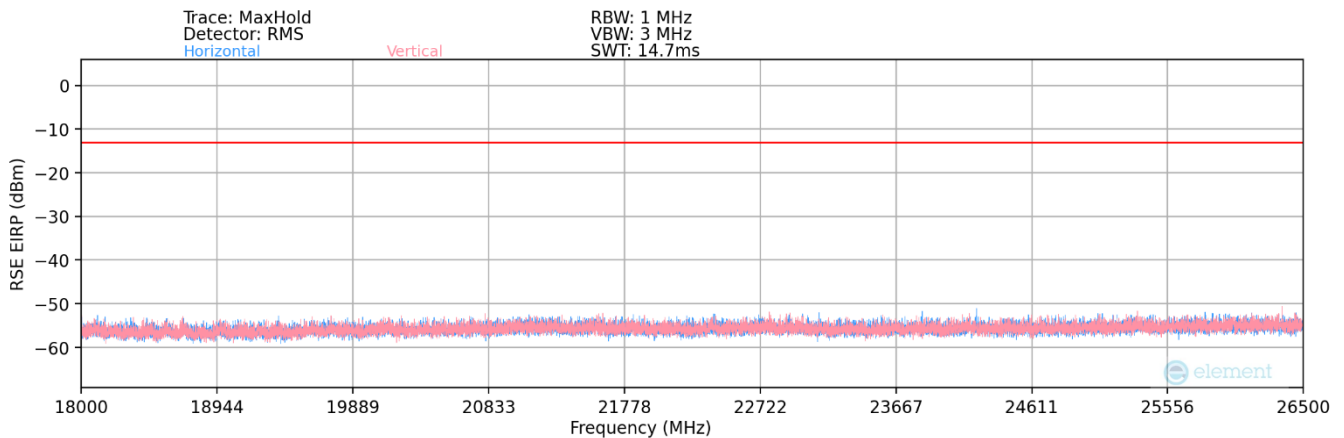
# NR Band n77 DoD – Ant I



**Plot 7-179. Radiated Spurious Plot (NR Band n77 – Ant I)**

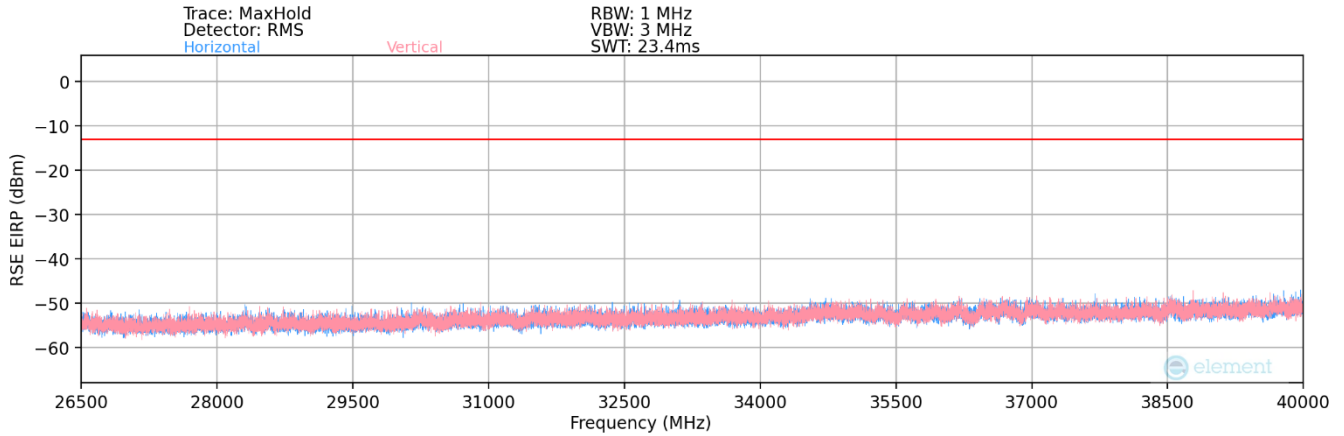


**Plot 7-180. Radiated Spurious Plot (NR Band n77 – Ant I)**



**Plot 7-181. Radiated Spurious Plot (NR Band n77 – Ant I)**

<b>FCC ID:</b> A3LSMS938B	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2408260069-08.A3L	<b>Test Dates:</b> 09/03/2024 - 11/05/2024	<b>EUT Type:</b> Portable Handset	Page 142 of 154



Plot 7-182. Radiated Spurious Plot (NR Band n77 – Ant I)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
143.33	V	-	-	-74.06	19.75	52.69	-44.71	-13.00	-31.71

Table 7-40. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant I)

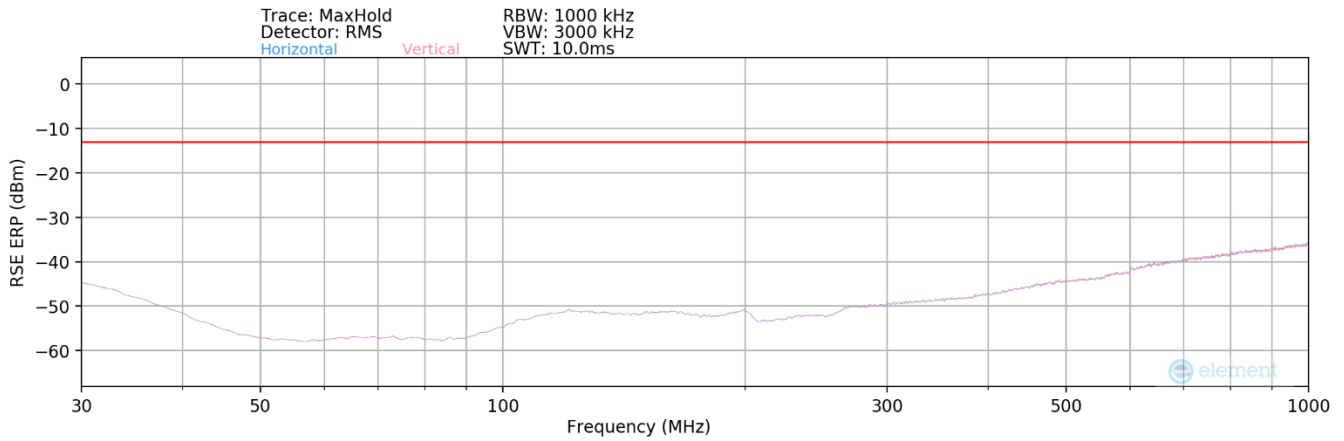
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7000.02	V	137	167	-78.51	9.04	37.53	-57.72	-13.00	-44.72
10500.03	V	-	-	-82.44	12.41	36.97	-58.29	-13.00	-45.29
14000.04	V	-	-	-82.61	16.06	40.45	-54.81	-13.00	-41.81
17500.05	V	-	-	-82.84	16.98	41.14	-54.11	-13.00	-41.11

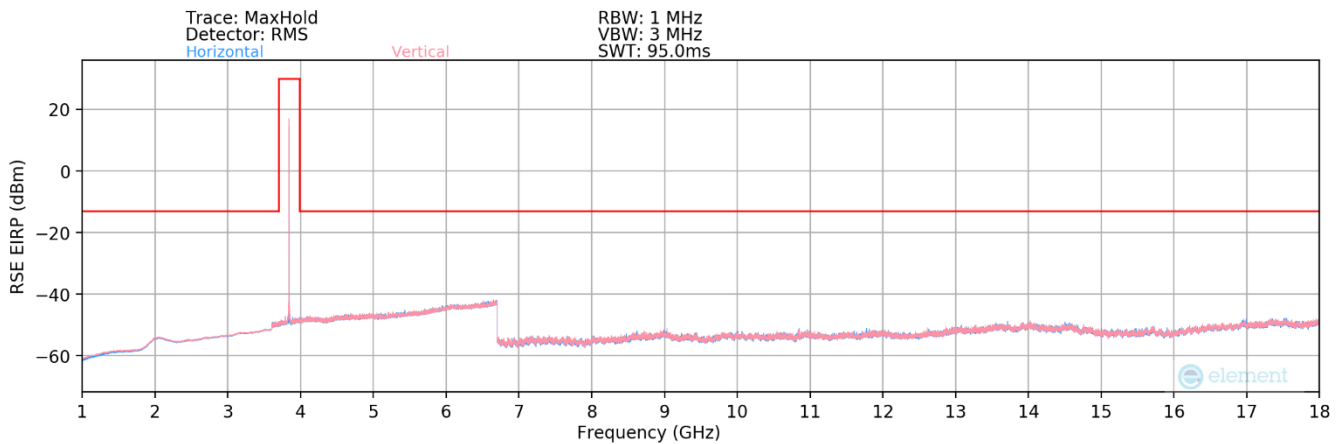
Table 7-41. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant I)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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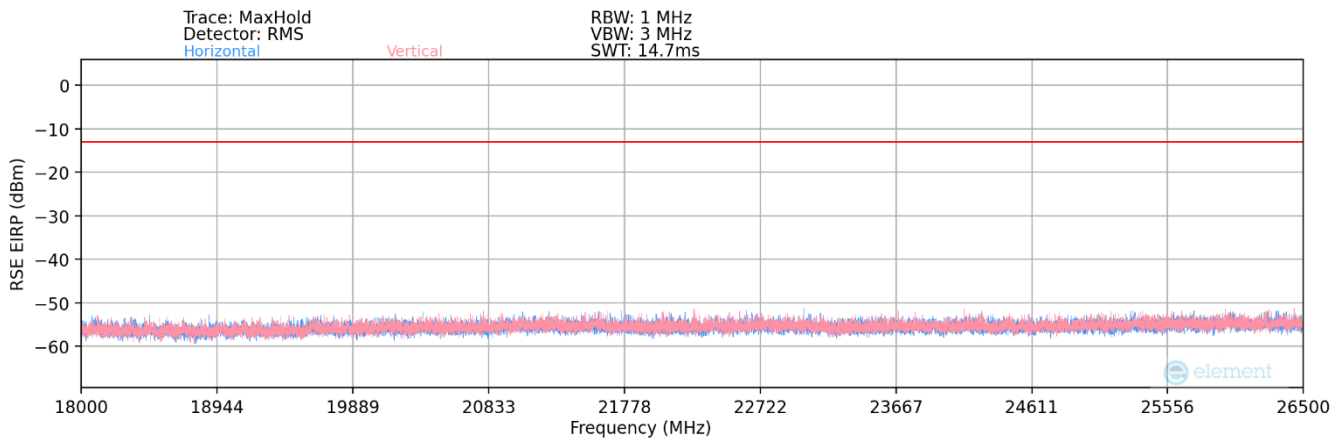
# NR Band n77 C-band – Ant I



Plot 7-183. Radiated Spurious Plot (NR Band n77 – Ant I)

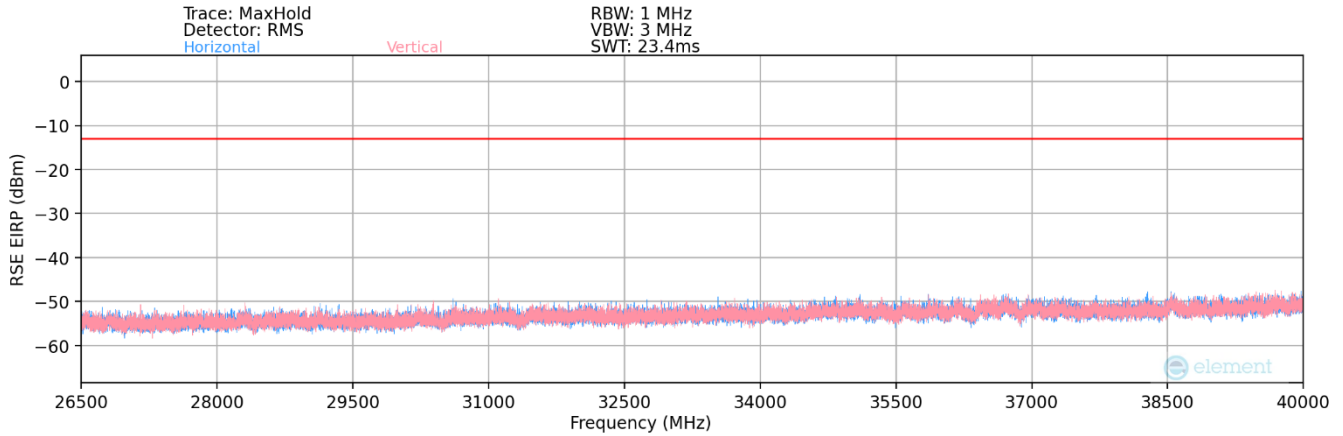


Plot 7-184. Radiated Spurious Plot (NR Band n77 – Ant I)



Plot 7-185. Radiated Spurious Plot (NR Band n77 – Ant I)

FCC ID: A3LSMS938B		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset		Page 144 of 154



Plot 7-186. Radiated Spurious Plot (NR Band n77 – Ant I)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
142.98	V	-	-	-74.05	19.88	52.83	-44.57	-13.00	-31.57

Table 7-42. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant I)

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7500.00	V	135	301	-79.49	10.14	37.65	-57.61	-13.00	-44.61
11250.00	V	-	-	-82.12	12.60	37.48	-57.77	-13.00	-44.77
15000.00	V	256	315	-80.91	14.06	40.15	-55.10	-13.00	-42.10

Table 7-43. Radiated Spurious Data (NR Band n77 – Low Channel – Ant I)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7680.00	V	121	294	-77.18	8.95	38.77	-56.49	-13.00	-43.49
11520.00	V	-	-	-82.63	13.02	37.39	-57.87	-13.00	-44.87
15360.00	V	-	-	-81.95	14.05	39.10	-56.16	-13.00	-43.16

Table 7-44. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant I)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 145 of 154



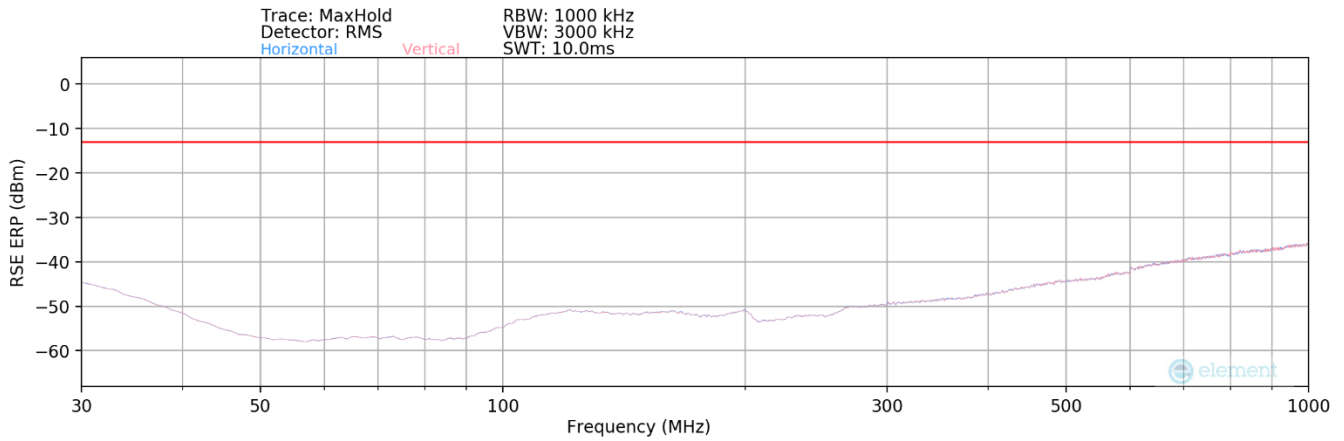
Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	V	129	311	-77.18	9.45	39.27	-55.99	-13.00	-42.99
11790.00	V	-	-	-82.17	13.33	38.16	-57.10	-13.00	-44.10
15720.00	V	-	-	-82.67	15.23	39.56	-55.70	-13.00	-42.70

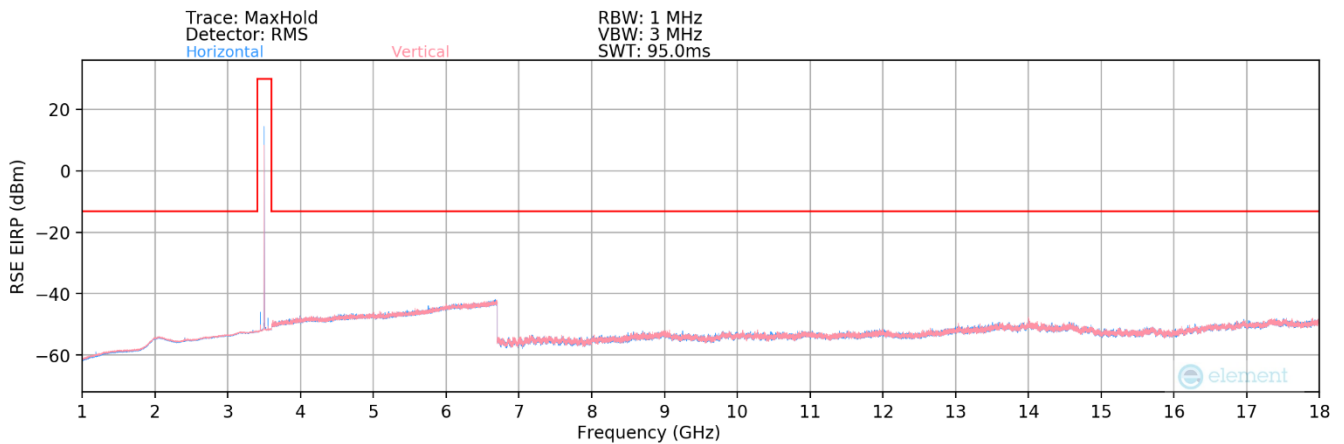
**Table 7-45. Radiated Spurious Data (NR Band n77 – High Channel – Ant I)**

<b>FCC ID:</b> A3LSMS938B	<b>PART 27 MEASUREMENT REPORT</b>		<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2408260069-08.A3L	<b>Test Dates:</b> 09/03/2024 - 11/05/2024	<b>EUT Type:</b> Portable Handset	Page 146 of 154

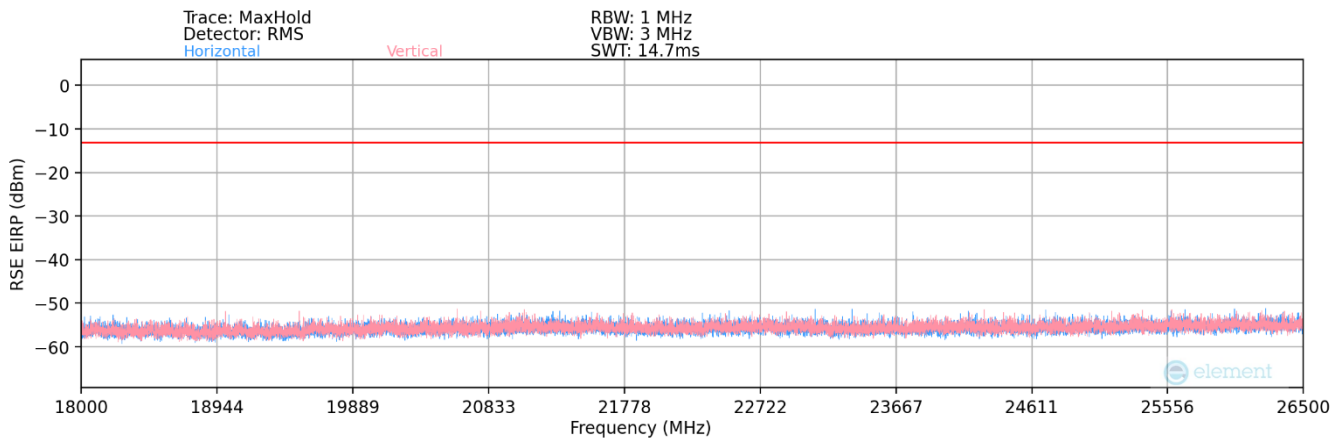
# NR Band n77 DoD – Ant D



Plot 7-187. Radiated Spurious Plot (NR Band n77 – Ant D)

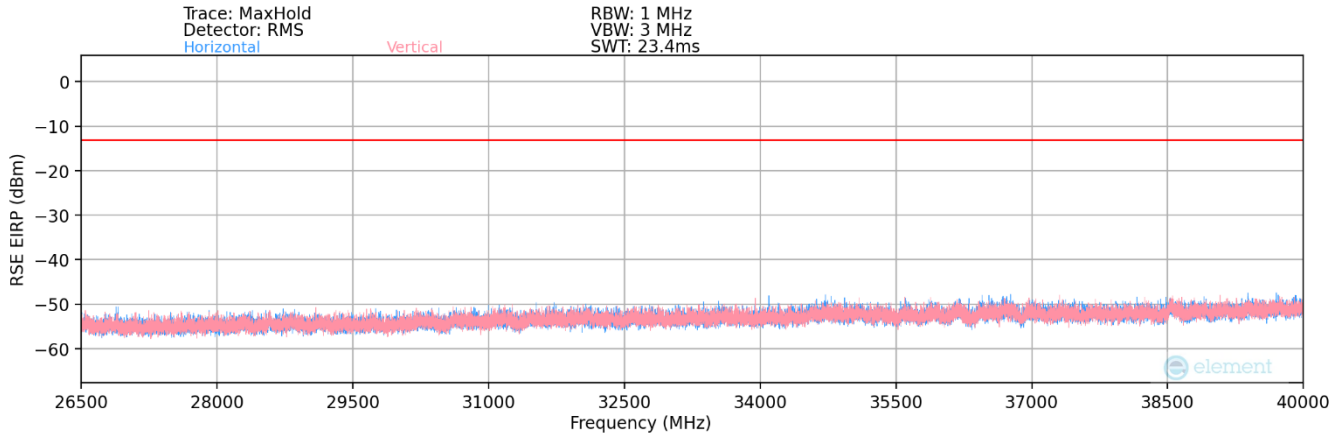


Plot 7-188. Radiated Spurious Plot (NR Band n77 – Ant D)



Plot 7-189. Radiated Spurious Plot (NR Band n77 – Ant D)

FCC ID: A3LSMS938B		PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset		Page 147 of 154



Plot 7-190. Radiated Spurious Plot (NR Band n77 – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
141.28	V	-	-	-73.97	19.71	52.74	-44.66	-13.00	-31.66

Table 7-46. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

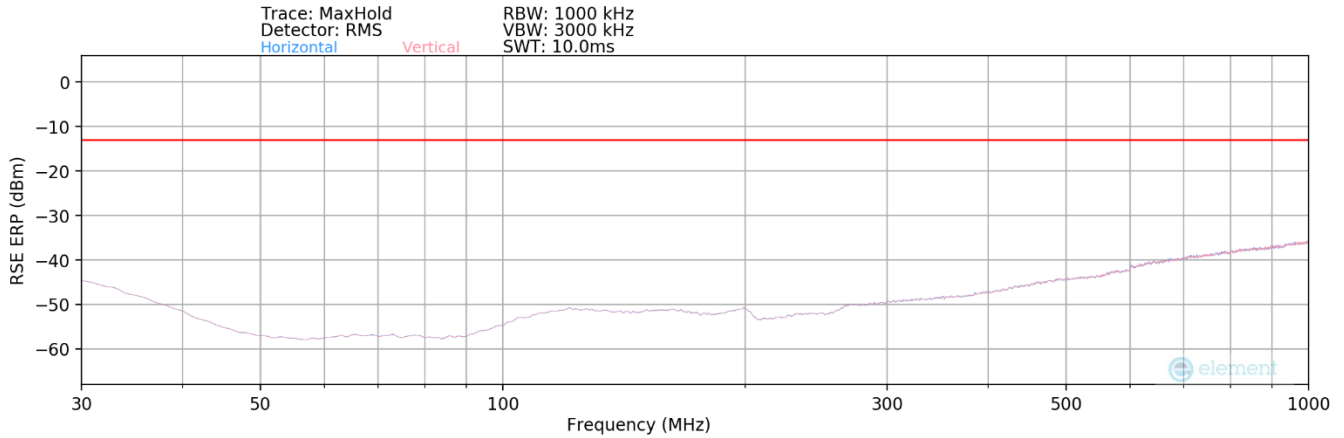
Bandwidth (MHz):	100
Frequency (MHz):	3500.01
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7000.02	V	288	256	-79.05	9.04	36.99	-58.26	-13.00	-45.26
10500.03	V	-	-	-82.44	12.41	36.97	-58.29	-13.00	-45.29
14000.04	V	-	-	-82.88	16.06	40.18	-55.08	-13.00	-42.08
17500.05	V	-	-	-82.84	16.98	41.14	-54.11	-13.00	-41.11

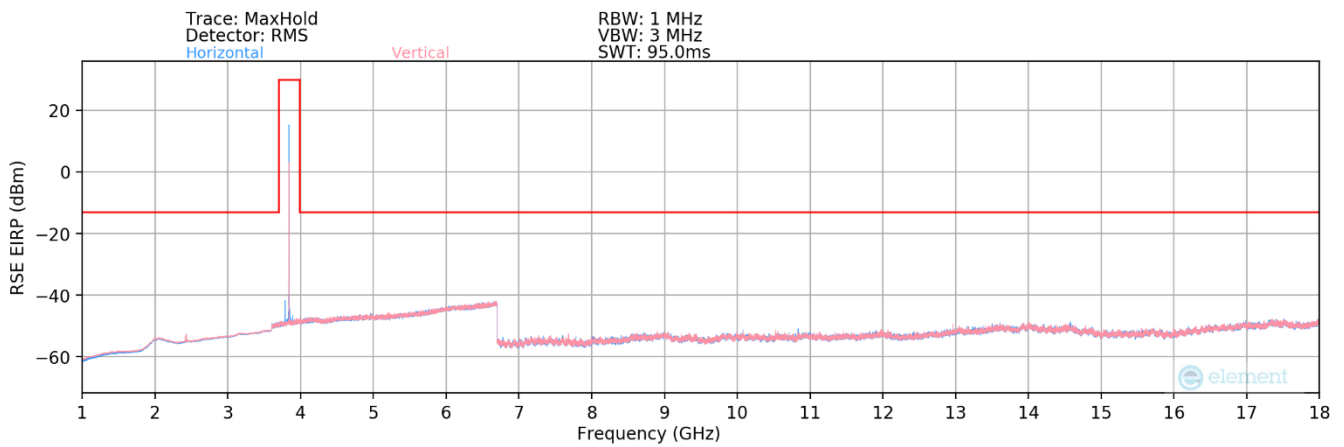
Table 7-47. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 148 of 154

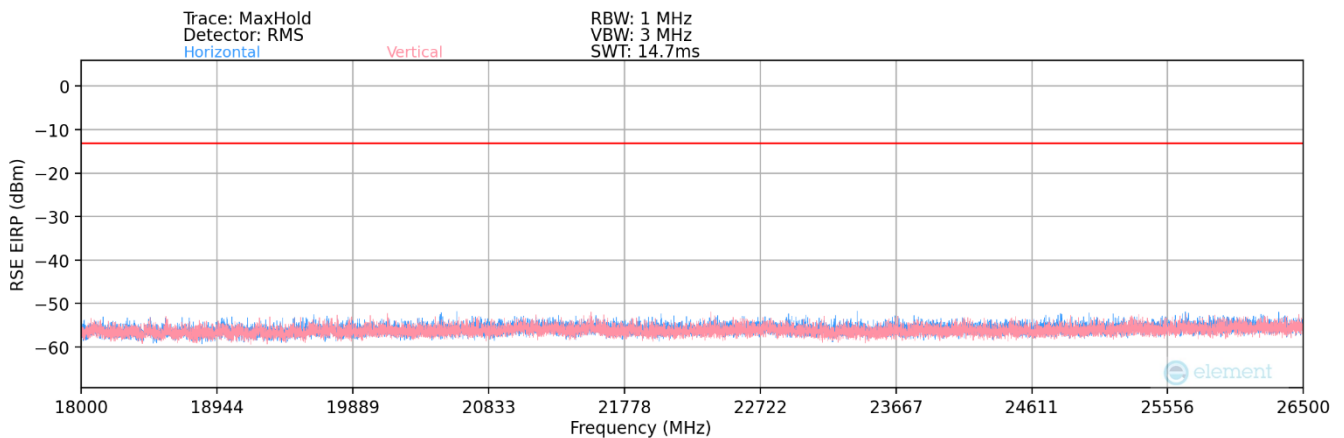
## NR Band n77 C-band – Ant D



Plot 7-191. Radiated Spurious Plot (NR Band n77 – Ant D)

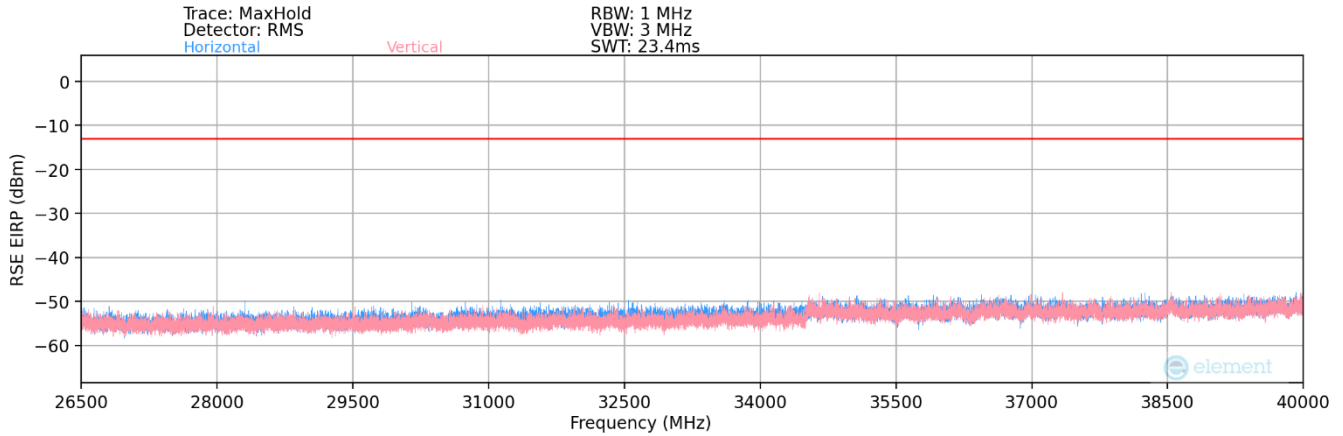


Plot 7-192. Radiated Spurious Plot (NR Band n77 – Ant D)



Plot 7-193. Radiated Spurious Plot (NR Band n77 – Ant D)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 149 of 154



Plot 7-194. Radiated Spurious Plot (NR Band n77 – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
140.13	V	-	-	-74.02	19.94	52.92	-44.49	-13.00	-31.49

Table 7-48. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3750.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7500.00	V	244	45	-78.06	10.14	39.08	-56.18	-13.00	-43.18
11250.00	V	-	-	-82.07	12.60	37.53	-57.72	-13.00	-44.72
15000.00	V	-	-	-82.65	14.06	38.41	-56.84	-13.00	-43.84

Table 7-49. Radiated Spurious Data (NR Band n77 – Low Channel – Ant D)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7680.00	V	260	41	-75.37	8.95	40.58	-54.68	-13.00	-41.68
11520.00	V	-	-	-82.74	13.02	37.28	-57.98	-13.00	-44.98
15360.00	V	230	19	-80.02	14.05	41.03	-54.23	-13.00	-41.23

Table 7-50. Radiated Spurious Data (NR Band n77 – Mid Channel – Ant D)

FCC ID: A3LSMS938B	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 150 of 154



Bandwidth (MHz):	100
Frequency (MHz):	3930.00
RB / Offset:	1/136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dB $\mu$ V/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
7860.00	V	272	38	-77.29	9.45	39.16	-56.10	-13.00	-43.10
11790.00	V	-	-	-82.11	13.33	38.22	-57.04	-13.00	-44.04
15720.00	V	258	59	-82.27	15.23	39.96	-55.30	-13.00	-42.30

**Table 7-51. Radiated Spurious Data (NR Band n77 – High Channel – Ant D)**

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<b>Test Report S/N:</b> 1M2408260069-08.A3L	<b>Test Dates:</b> 09/03/2024 - 11/05/2024	<b>EUT Type:</b> Portable Handset	Page 151 of 154



## 7.9 Frequency Stability / Temperature Variation

### Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI C63.26-2015. The frequency stability of the transmitter is measured by:

- a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.
- b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

***For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.***

### Test Procedure Used

ANSI C63.26-2015 – Section 5.6

### Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a “standby” condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

### Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

### Test Notes

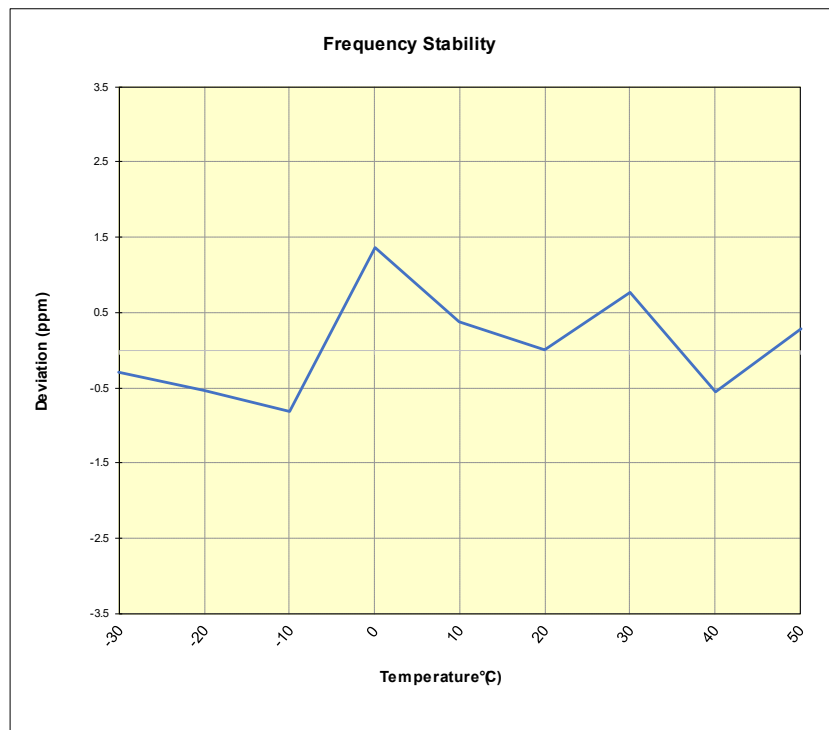
None

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## NR Band n77

NR Band n77					
Operating Frequency (Hz):		3,840,000,000			
Ref. Voltage (VDC):		4.27			
Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %		- 30	3,840,013,120	-1,113	-0.0000290
		- 20	3,840,012,178	-2,055	-0.0000535
		- 10	3,840,011,119	-3,114	-0.0000811
		0	3,840,019,444	5,211	0.0001357
		+ 10	3,840,015,677	1,444	0.0000376
		+ 20 (Ref)	3,840,014,233	0	0.0000000
		+ 30	3,840,017,196	2,963	0.0000772
		+ 40	3,840,012,115	-2,118	-0.0000552
Battery Endpoint		+ 50	3,840,015,344	1,111	0.0000289
		+ 20	3,840,013,907	-326	-0.0000085

**Table 7-52. NR Band n77 Frequency Stability Data**



**Plot 7-195. NR Band n77 Frequency Stability Chart**

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## 8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMS938B** complies with all the requirements of Part 27 of the FCC rules.

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Test Report S/N: 1M2408260069-08.A3L	Test Dates: 09/03/2024 - 11/05/2024	EUT Type: Portable Handset	Page 154 of 154